I. INTRODUCTION AND PROJECT DESCRIPTION

This report details the findings of a program for archaeological monitoring that URS Corporation (URS) conducted for the Delaware Department of Transportation (DelDOT). Work was initiated in response for the planned replacement of two bridges (526 and 527) on State Route 326 at Betts Pond, Millsboro, Sussex County (Figure 1). Edward Morin conducted a preliminary walkover and reconnaissance survey of the proposed project area on September 26, 1999. The survey confirmed previous background research, which suggested that this section of the roadway follows an early milldam. In addition, Bridge 526 carries the road across a raceway, also serving as a culvert, to an extant mill and Bridge 527 spans a culvert that with a spillway that helps regulate the water level on the millpond. While on site, Mr. Morin encountered one of the property owners, Ralph Warren, whose family owns the land, the extant mill, and the millpond located adjacent to the project area. Mr. Warren was gracious enough to provide a brief history of the mill and millpond in addition to a tour of the property. The survey indicated that the steep embankment along the northern side of the dam and the presence of large boulders (placed by Mr. Warren to prevent embankment erosion) adjacent to the culvert would prevent the placement of shovel test pits (STPs) and/or test units in the vicinity of the two bridges. Therefore, as decided in consultation with Kevin Cunningham (DelDOT) and Gwen Davis (DE SHPO), archaeological monitoring would be conducted in the areas known or suspected to contain significant archaeological resources and anticipated to experience construction impacts. These areas included the two bridges slated for replacement, the upgrading of the pond side sluice gate area and culvert to Bridge 526, the upgrading of the spillway on the pond and downstream side and replacement of the culvert to Bridge 527, and roadway improvements to State Route 326. Archaeological monitoring was provided in order to ensure that all cultural resources encountered during construction were adequately protected from unnecessary impacts or, if disturbances to archaeological resources were unavoidable, that the impacted resources were adequately recorded prior to construction. The project's area of potential effects (APE) was defined as the boundaries for the limits of construction, in consultation with the DE SHPO, as set out on the construction plans provided by DelDOT (Figure 2).

All work for this project was performed pursuant to the National Historic Preservation Act of 1966, as amended; the Advisory Council on Historic Preservation's "Protection of Historic Properties" (36 CFR part 800, June 1999); the Department of Transportation Act of 1966; and 23 CFR 771. This work also followed the Delaware State Historic Preservation Office's *Guidelines for Architectural and Archaeological Surveys in Delaware,* and the *Secretary of the Interior's Standards and Guidelines for Archaeological Documentation* (48FR44734-37). Archaeological monitoring was conducted intermittently from March 9 to July 3, 2003. Edward Morin served as the project's Principal Investigator. Field Supervisor Bernard Slaughter oversaw the fieldwork. The field crew consisted of John Gill and Karl Franz. Christine Feeney conducted the historic background research and oral interviews with the Warren family. Lynda Bass and Scott Hood prepared graphics for the report, and Paul Elwork edited the text for style and content.

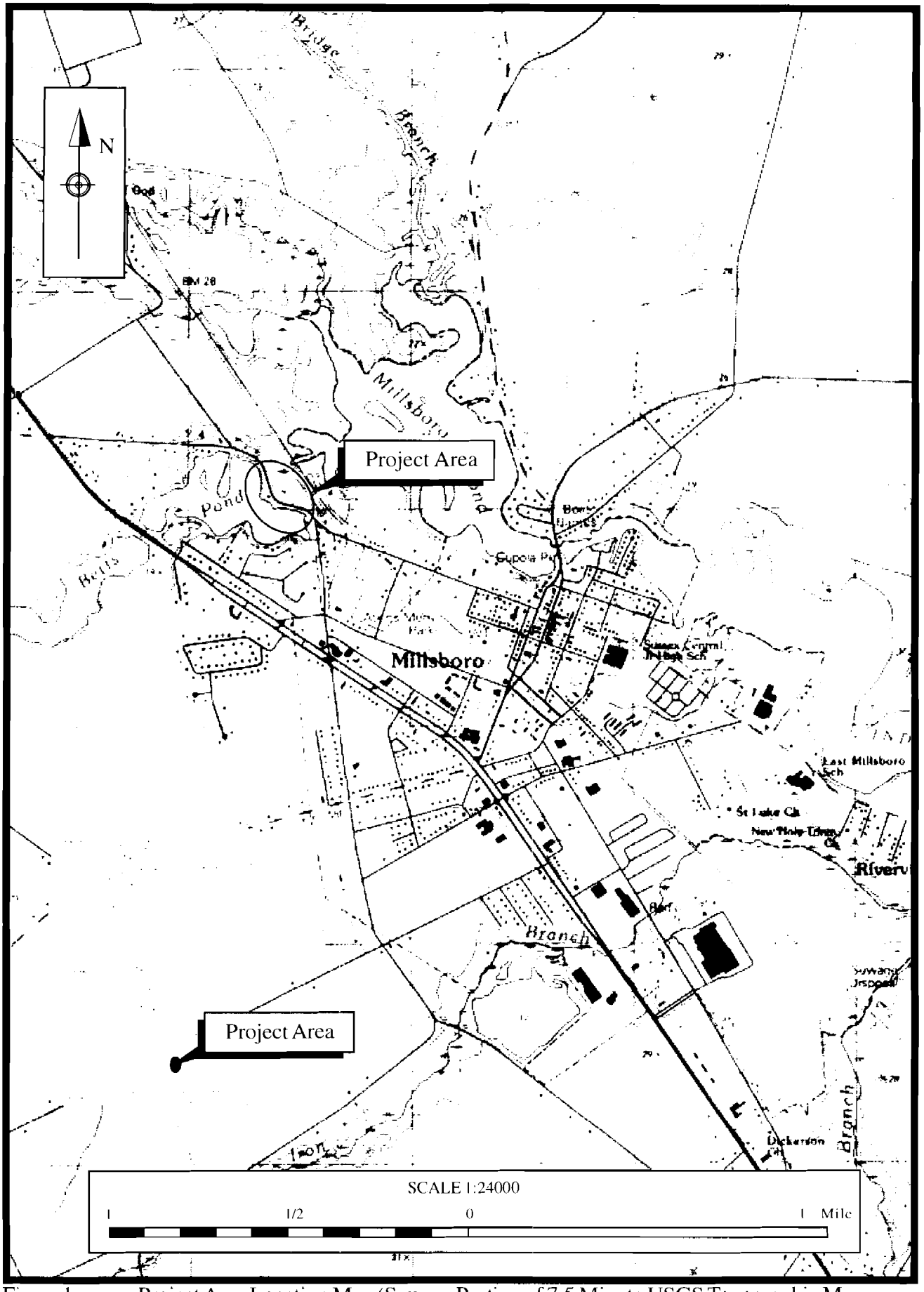
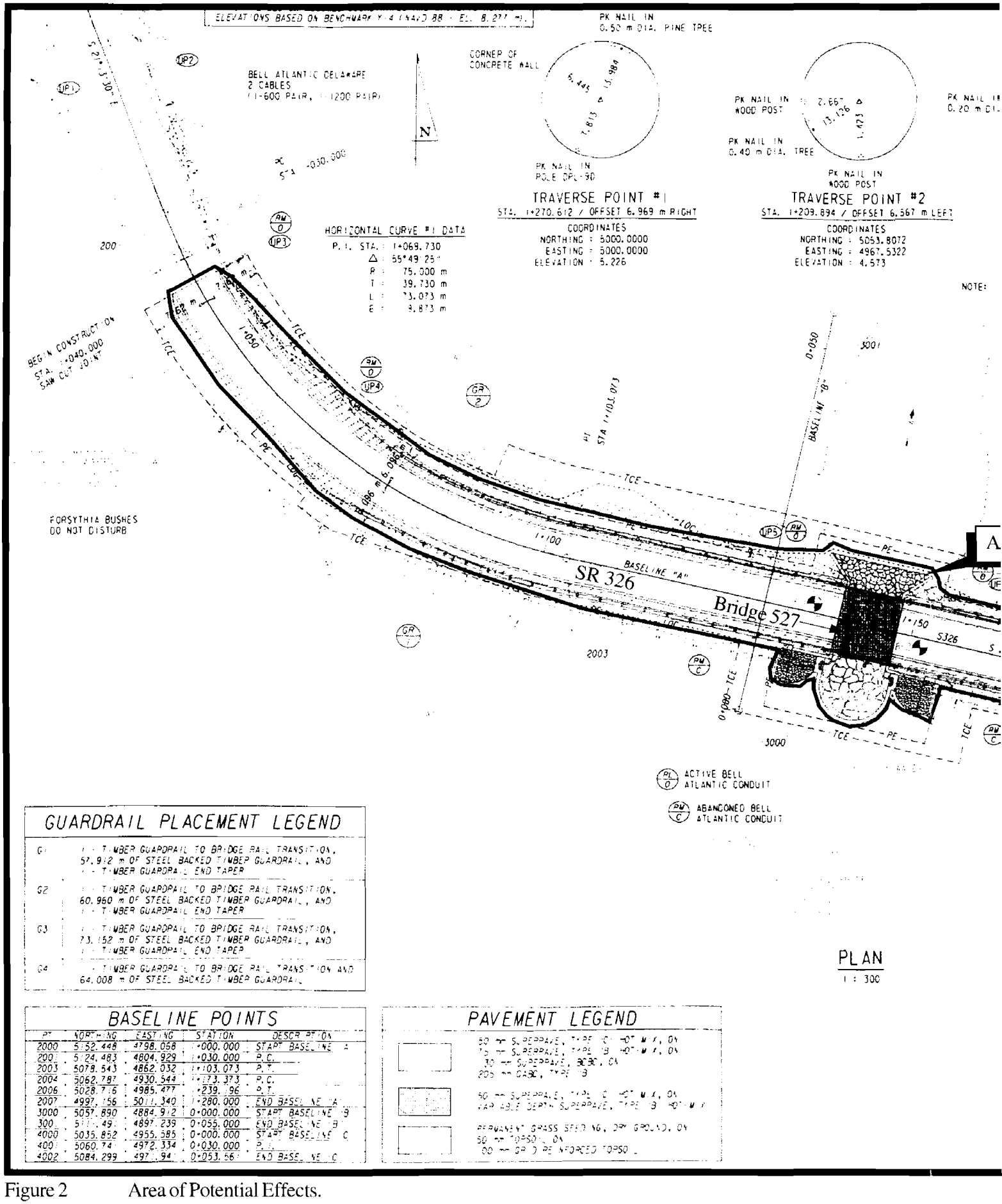


Figure 1 Project Area Location Map (Source: Portion of 7.5 Minute USGS Topographic Map, Millsboro Quadrangle, 1977).



GUARDRAIL PLACEMENT LEGEND

G1	1 - TIMBER GUARDRAIL TO BRIDGE RAIL TRANSITION, 57.912 m OF STEEL BACKED TIMBER GUARDRAIL, AND 1 - TIMBER GUARDRAIL END TAPER
G2	1 - TIMBER GUARDRAIL TO BRIDGE RAIL TRANSITION, 60.960 m OF STEEL BACKED TIMBER GUARDRAIL, AND 1 - TIMBER GUARDRAIL END TAPER
G3	1 - TIMBER GUARDRAIL TO BRIDGE RAIL TRANSITION, 73.152 m OF STEEL BACKED TIMBER GUARDRAIL, AND 1 - TIMBER GUARDRAIL END TAPER
G4	1 - TIMBER GUARDRAIL TO BRIDGE RAIL TRANSITION AND 64.008 m OF STEEL BACKED TIMBER GUARDRAIL

BASELINE POINTS

PT	NORTHING	EASTING	STATION	DESCRIPTION
2000	5152.448	4798.068	1+000.000	START BASELINE A
2001	5124.483	4804.929	1+030.000	P.C.
2003	5078.543	4862.032	1+103.073	P.T.
2004	5062.787	4930.544	1+173.373	P.C.
2006	5028.716	4985.477	1+239.96	P.T.
2007	4997.156	5011.340	1+280.000	END BASELINE A
3000	5057.890	4884.912	0+000.000	START BASELINE B
3001	5111.49[illegible]	4897.239	0+055.000	END BASELINE B
4000	5035.852	4955.585	0+000.000	START BASELINE C
4001	5060.74[illegible]	4972.334	0+030.000	P.I.
4002	5084.299	497[illegible].94	0+053.56[illegible]	END BASELINE C

PAVEMENT LEGEND

50 mm SUPERPAVE, TYPE [illegible] HOT MIX, ON
150 mm SUPERPAVE, TYPE B HOT MIX, ON
330 mm SUPERPAVE, 20BC, ON
200 mm OGBC, TYPE B

50 mm SUPERPAVE, TYPE [illegible] HOT MIX, ON
VARIABLE DEPTH SUPERPAVE, TYPE B HOT MIX

PERMANENT GRASS SEED MIX, 2% GROUND, ON
50 mm TOPSOIL, ON
100 mm GRID REINFORCED TOPSOIL

PLAN
1 : 300

Figure 2 Area of Potential Effects.

METRIC

BR526 & BR527 ON S326 AT BETTS POND, MILLSBORO

REVISIONS

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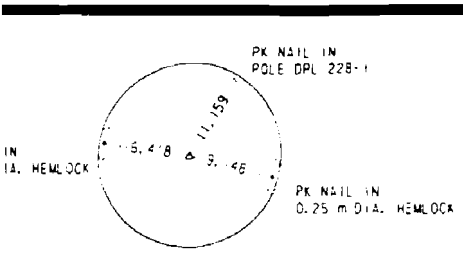
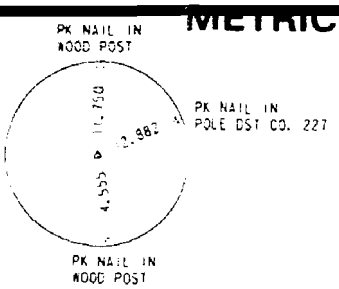


TRAVERSE POINT #3
STA. 1+150.729 / OFFSET 4.501 m RIGHT
COORDINATES
NORTHING = 5065.8044
EASTING = 4907.8521
ELEVATION = 4.140



TRAVERSE POINT #4
STA. 1+069.112 / OFFSET 4.810 m RIGHT
COORDINATES
NORTHING = 5090.6029
EASTING = 4830.8978
ELEVATION = 4.218

ALL STATIONS, OFFSETS, COORDINATES, ELEVATIONS, AND DISTANCES TO T.P.'S ARE IN METERS.

NOTES:

1. ALL TREES ON THE POND SIDE WHICH ARE NOT DESIGNATED TO BE REMOVED BY THE CONTRACTOR SHALL NOT BE DISTURBED.
2. DUE TO THE PROXIMITY OF THE MILL TO THE ROAD, THE CLEAR ZONE HAS BEEN REDUCED BY A DESIGN EXCEPTION TO 1.4 m FROM THE EDGE OF THE LANE.
3. THE TCE AROUND THE HISTORIC MILL ON PARCEL 2-L IS FOR THE PURPOSE OF MONITORING THE MILL DURING CONSTRUCTION ONLY.
4. ALL TREES ON THE NORTH SIDE OF THE ROAD WHICH ARE LARGER THAN 150 mm IN DIAMETER SHALL NOT BE DISTURBED.